REMARKS

In response to the final Office Action dated April 22, 2005, reconsideration and allowance of the present application are respectfully requested. Claims 11-17, 19-25 and 27-32 remain pending, of which claims 14, 22 and 29 are independent. By this amendment, claims 14, 22 and 29 are amended.

In numbered paragraph 5 of the Office Action, independent claims 14, 22 and 29, along with all dependent claims, are rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,181,826 (Weldy et al.) in view of U.S. Patent No. 6,263,106 (Yamagata). This rejection is respectfully traversed.

Applicant has disclosed a method and system for processing images in a digital camera wherein the digital camera includes an image storage device having primary and secondary storage areas. As exemplified in Fig. 1 and described on page 2 of Applicant's specification, exemplary embodiments of the present invention can perform image compression on an image using first and second image data quantizations to produce two different data sets relating to the same image: a primary compressed data set and an auxiliary compressed data set. The primary compressed data set is sufficient to reproduce the image at a first quality level. However, the primary and auxiliary data sets can be combined to reproduce the same image with a higher quality level (i.e., high resolution). Accordingly the two compressed image data sets can be viewed as combinable portions of the stored data representing a single raw image.

As subsequent images are captured, primary and auxiliary data sets are generated for each image. Each primary data set is stored in a primary storage area. Each auxiliary data set is stored in a secondary storage area. When the

primary storage area becomes filled, space in the secondary storage area containing auxiliary data sets is released to store additional primary data sets. Thus, exemplary embodiments of the present invention add intelligence to the manner by which compressed digital image data is stored in and/or released from a memory used to store multiple compressed image data sets for a given image. Specifically, the exemplary method can release space used to store the second compressed image data set associated with the raw image in the secondary storage area of the image storage device to store a first compressed image data set associated with another raw image when insufficient space is available in the primary storage area of the image storage device to store the first compressed image data set associated with another raw image.

The foregoing features are broadly encompassed by independent claim 14, which recites, among other features, releasing space used to store the second compressed image data set associated with the raw image in the secondary storage area of the image storage device to store a first compressed image data set associated with another raw image when insufficient space is available in the primary storage area of the image storage device to store the first compressed image data set associated with another raw image. The space being released encompasses the portion of space storing a second compressed image data set associated with a raw image that is already stored. This portion of space can be released when insufficient space is available in a primary storage area to store the first compressed image data set associated with another raw image. Such releasing of a portion of data for the raw image already stored to accommodate storage of another portion of data for

another raw image is not taught or suggested in the documents relied upon by the Examiner.

The Weldy et al. and Yamagata patents, even when considered in the combination relied upon by the Examiner, do not teach or suggest such a method. The Examiner's rejection fails to establish a prima facie case of obviousness because neither of the documents relied upon teach or suggest that only a portion of compressed image data associated with an image should be released from memory in favor of another portion of compressed image data for a different image.

Although the Weldy patent discloses using two M/2 quantization level images for an M level image, there is no teaching or suggestion to release data associated with only one of the two M/2 images from memory under specific conditions. The Weldy patent is directed to reconstructing an M level image by forming at least two non-dependent digital images from an original digital image. The two non-dependent images are formed by quantizing an original M level image to two M/2 level images, one being rounded down in value and the other being rounded up in value (see Abstract). An image having a higher resolution than either of the non-dependent M/2 digital images can be formed by combining and averaging the non-dependent images. As shown in Figure 1 of the Weldy patent, the digital images can be written onto a compact disk by a CD writer 5. A CD player 7 is used to read selected images from the compact disk and to reconstruct and to forward the selected images for display on a standard TV display 8, a thermal printer 9, or a computer monitor.

The Weldy et al. patent relates to the receipt of a digitized image from a scanner 3 having high resolution which permits certain printers to print images that correspond to photographic quality originals. Specifically, the Weldy et al. patent

discloses manipulating images through a hierarchical residual based scheme to generate a number of images of differing resolution levels for saving on a compact disk (col. 3, lines 31-45). Representations of images are quantized using different quantizers for purposes of reconstructing the image for viewing or printing (col. 7, lines 63-67). However, the Weldy et al. patent does not teach or suggest selectively releasing space used to store the second compressed image data set associated with the raw image in the secondary storage area of the image storage device to store a first compressed image data set associated with another raw image when insufficient space is available in the primary storage area of the image storage device to store the first compressed image data set associated with another raw image.

The Yamagata patent fails to overcome the deficiencies noted with respect to the Weldy et al. patent. The Yamagata patent is directed to an image data compression device wherein a number of image data files recorded by the image data compression device are stored in a memory card either uncompressed, in a low-compression format, or in a high-compression format (see Abstract). As described in the Summary of the Yamagata patent, an object is to enable a user to select image data that is inhibited from being compressed. This patent describes using data flags associated with image data files, where the data flags are set at the time of recording. The compression of a recorded image data file is inhibited if an associated flag has a predetermined status. Image data files which are already recorded in the recording medium can be compressed to a next higher level of compression to increase remaining capacity, as described in the Summary of the Yamagata patent. However, the Yamagata patent does not teach or suggest

releasing space used to store the second compressed image data set associated with the raw image in the secondary storage area of the image storage device to store a first compressed image data set associated with another raw image when insufficient space is available in the primary storage area of the image storage device to store the first compressed image data set associated with another raw image.

Thus, there would have been no motivation or suggestion to have used a quantization technique, as described in the Weldy et al. patent, with the features described in the Yamagata patent to arrive at the presently claimed invention. Moreover, even if the Weldy et al. and Yamagata patents could have somehow been combined in a manner suggested by the Examiner, the presently claimed invention would not have resulted.

The Weldy and Yamagata patents do not teach or suggest releasing space used to store the second compressed image data set associated with the raw image in the secondary storage area of the image storage device to store a first compressed image data set associated with another raw image when insufficient space is available in the primary storage area of the image storage device to store the first compressed image data set associated with another raw image, as recited in Applicants' independent claim 14. That is, neither of the documents relied upon by the Examiner, considered individually or in combination, teach or suggest generating a first compressed image data set (using a first quantizing step), for producing substantially the entire image at a first quality level, the first compressed image data set being stored in a primary storage area; a second compressed image data set which when combined with the first compressed image data set reproduce

substantially the entire image at a second, higher quality level, the second compressed image set being stored in the secondary storage area; and releasing only a portion of compressed image data associated with an image from memory in favor of another portion of compressed image data for a different image.
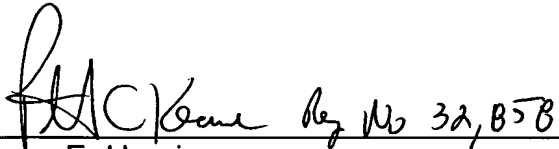
Independent claim 14 is therefore allowable over the Weldy et al. and Yamagata patents. Independent claims 22 and 29 recite similar features and are also allowable. The remaining claims depend from these three independent claims and are further considered allowable.

All rejections and objections raised in the Office Action having been addressed, it is respectfully submitted that the present application is in condition for allowance, and a Notice of Allowance is respectfully solicited.

Respectfully submitted,

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